INDEX TO VOLUME I

New scientific names are printed in full face type

Aecidium trifolii-repentis, 3, 6
Alfalfa rust, 108
Althea rosea, 57
Anthracnose, a study of, 106; bean, varietal resistance to, 107; cotton, 108; Schizanthus, 120
Apple, new fruit spot, 32, 108; hairy root, 10; water-core, 128
Apple trees, effect of arsenicals, 79
Armillaria mellea, 104
Autoecism, 104

Bacillus amylovorus, 156, 157; persistence of in apple twigs, 68; — carotovorus, 76; — coli, 97, 98, 99; a plant parasite, 97; — musae, 48; — tumefaciens, 106; — solanacearum, 48; — vitivorus, 116
Bacteria in relation to plant diseases,
Bacterial disease of banana and plantain, 45, 108
Bacterium tumefaciens, 7, 8, 106
Banana, bacterial disease of, 45, 108
Barre, H. W., Results of cotton anthracnose work for 1910, 108
Barrus, M. F., Varietal resistance of beans to anthracnose, 107
de Bary, Anton, biographical sketch of, 1
Baumkrankheiten, Versuche über, 105
Beans, varietal resistance to anthracnose, 107, 190
Beckwith, T. D., Root and culm infections by soil fungi in North Dakota, 169
Beet, leaf spot of, 108
Bjerkandera, 179
Black rot disease of the grape, 167
Blaufäule des Nadelholzes, 104
Burger, O. F., Fawcett, H. S. and, 164

Cabbage, black leg, 28; club root of, 159; Fusarium wilt, 28; Phoma wilt, 28
Caeoma abietis-canadensis, 94; tsugae, 95
Calamagrostis canadensis, Sclerotium rhizoides on, 69
Cankers of peach trees, 66
Carya tomentosa, 134
Castanopsis chrysophylla, 132
Cenangium abietis, injury to Pinus strobus, 180
Cenangium ferruginosum, 183
Cephalothecium, 171
Ceratostomella pilifera, 104
Cereal smut spore germination, 108
Chestnut, bark diseases, 106
Citrus, scaly bark, 164; aurantium, 65, 164; Cladosporium on, 164; hystrix, var. acida, 63, 65
Cladosporium graminum, 19, 20, 23, 26; herbarum on citrus, 164; herbarum var. **citricolum,** 165
Claviceps, method of developing, 50; purpurea, 50, 51
Clover, red, rust of, 3; white, rust of, 3
Club root of cabbage, 159
Colletotrichum, on cotton, 169; on wheat, 169
Colletotrichum lindemuthianum, strains of 194; **schizanthi,** 125
Collybia velutipes, 104, 105
Coniothyrium fuckelii, parasitism of, 100
Cook, M. T., Tannin in relation to the enzymes of the plant cells, 68; Notes on hypertrophied structures, 108
Cook, Mel T., and Taubenhaus, J. J., Trichoderma Köningi the cause of a disease of sweet potatoes, 184
Coniophora cerebella, 104, 108
Corticium laetum, 16, 17; roseum, 17
Cotton anthracnose, 108
Cronartium asclepiadeum, 146; quercuum, 131, 132
Crown gall of grape, 106; of plants, 7, 108
Crown swelling disease of peach, 53
Cryptospora aesculi, 118; aurea, 118; compta, 118; daldiniana, 118; ehrenbergii, 118; foraminula, 118; hypodermia, 118
Cryptosporella, 106; veneta, 118; **viticola,** 119
Cylindrosporium pomi, 34
Cystopus, spore germination, 69
Cystopus candidus, 75

Dactylis glomerata, 50
Dasyscypha wilkommii, 105
Dendrophagus, 10
Diseases of economic plants, 35
Diseases of trees, 108
Distichlis spicata, 147
Dolichos sesquipedalis, 191
Duggar, B. M., Physiological plant pathology, 71
Durand, E. J., Differential staining of intercellular mycelium, 129

Edgerton, C. W., Two new fig diseases, 12
Euphorbia commutata, 5
Exoascus deformans, 107

Fagus sylvatica, 105
Fawcett, H. S., and Burger, O. F., A variety of Cladosporium herbarum on Citrus aurantium in Florida, 164
Festuca elatior, 50
Ficus carica, 16
Fig, two new diseases, 12; canker, 12; limb blight, 16
Fink, Bruce, Injury to Pinus strobus caused by Cenangium abietis, 180
Fomes annosus, 104, 108; fomentarius, 104, 105; fulvus, 104; igniarius, 104, 105; pinicola, 104
Forest tree diseases, 108
Freeman, E. M., Resistance and immunity in plant diseases, 109
Fruit spot of apple, 32, 108
Fruit trees, silver leaf, 177
Fulton, H. R., The persistence of Bacillus amylovorus in pruned apple twigs, 68
Fungi, mine, 108
Fungicides, studies on, 107
Fusarium, blight and rot of potato, 70; scab of wheat, 169; wilt of cabbage, 28; wilt of flax, 169
Fusicladium effusum, 133
Fusicoccum viticolum, 106, 116, 118, 119

Gloeosporium fructigenum, 106; gallarum, 106; guava, 106; officinale, 106; persea, 106; psidii, 199, 200
Gloeosporiums, relation to a sweet pea disease, 196
Glomerella rufo-maculans, 106
Grand Rapids tomato disease, 108
Grape, black rot disease of, 167; dead arm, 106, 116
Guignardia bidwellii, 167
Güssow, H. T., Preliminary note on silver leaf disease of fruit trees, 177
Gymnosporangium clavariaeforme, 147; globosum, 147

Hairy root, apple, 10
Hall, J. G., Stevens, F. L. and, 35
Hawkins, L. A., Review by, 168
Heald, F. D., Rhizoctonia medicaginis in America, 103
Hedgcock, G. G., Notes on Peridermium cerebrum Peck, and Peridermium harknessii Moore, 131; Notes on some diseases of trees in our natural forests, 108
Hedges, Florence, Sphaeropsis tumefaciens, n. sp., the cause of the lime and orange knot, 63
Helminthosporium on barley, 169
Heteroecism in rusts, 139
Humphrey, C. J., A contribution to our knowledge of mine fungi, 108
Hypertrophy, notes on, 108
Hypholoma fascicularis, 104

Immunität, Untersuchungen über, etc., 104

Jensen, C. N., and Stewart, V. B., Anthracnose of Schizanthus, 120
Johnson, E. C., Floret sterility of wheats in the southwest, 18
Jones, D. H., Scolytus rugulosus as an agent in the spread of bacterial blight in pear trees, 155
Jones, L. R., The relations of plant pathology to the other branches of botanical science, 39; review by, 203
Johnston, J. R., Is Bacillus coli ever a plant parasite? 97

Kern, F. D., The rusts of white and red clover, 3

Lavatera plebeia, 57
Lenzites betulina, 104, 105, 108; sepiaria, 105
Lime, knot, 63
Lolium temulentum, 113
Leaf blotch, pecan, 133
Leaf spot of sugar beets, 108

Macrosporium, 171
Malva crispa, 57, 61, rotundifolia, 56, 57, 58, 59, 60, 61; sylvestris, 57
Manns, T. F., Black-leg or Phoma wilt of cabbage, 28; The Fusarium blight and rot of potato, 70
Marasmius, 49
Merulius lacrymans, 104, 108
Melampsorella caryophyllacearum, 147
Melhus, I. E., The relation of temperature to spore germination and infection with Cystopus, 69
Metcalf, H., and Collins, J. F., Further notes on the bark diseases of the chestnut, 106
Mine fungi, 108
Morris, H. E., Swingle, D. B and, 79
Münch, E., Die Blaufäule des Nadelholzes, 104
Münch, E., Untersuchungen über Immunität, etc., 104
Münch, E., Versuche über Baumkrankheiten, 105
Mycelium, The differential staining of intercellular, 129
Mycosphaerella 133; **convexula,** 135
Musa chinensis, 46; paradisiaca, 46; textilis, 47

Necium farlowii, 94
Nectria cinnabarina, 105; ditissima, 105
Necrosis, grape, 106, 116
Norton J. B. S., Crown swelling disease of peach, 53; Water core of apple, 126
Nursery stock, Peach leaf-curl, 107

O'Gara, P. J., Parasitism of Coniothyrium fuckelii, 100

Olive, E. W., Origin of heteroecism in the rusts, 139
Orange knot, 63

Paxillus panuoides, 108
Pea, anthracnose of, 106
Peach, crown swelling disease of, 53; leaf curl, 107; winter killing of, 66
Pear, bacterial blight, 155
Pecan, leaf-blotch, 133
Peridermium cerebrum, 131, 132; fructigenum, 95, 96; harknessii, 131, 132; peckii, 94
Peronospora parasitica, 129
Phalaris arundinacea, 140
Phaseolus lunatus, 191; vulgaris, susceptibility, 191
Pholiota squarrosa, 104; adiposus, 104
Phoma brassicae, 28; oleracea, 29, 30
Phytophthora infestans, 75, 77
Pinus divaricata, 131; echinata, 131; murrayana, 132; ponderosa, 132; radiata, 132; rigida, 132; strobus, 131; sylvestris, 131, 132, 146; virginiana, 131
Pinus strobus, injury to by Cenangium abietis, 180
Plantains, bacterial disease of, 45, 108
Plant Diseases, resistance and immunity, 109
Plant pathology, industrial fellowship in, 68; physiological, 71; relations of to botanical science, 39
Plasmodiophora brassicae, 10, 159
Plaginathus spicatus, 57
Podophyllum peltatum, 106
Polystictus cinnabarina, 105; hirsutus, 105; pergamenus, 105; versicolor, 105, 108
Populus tremula, 118
Potato, Fusarium blight, 70; rot, 70
Pritchard, F. J., The wintering of Puccinia graminis tritici and the infection of wheat through the seed, 150
Puccinia caricis, 147; coronata, 141; coronifera, 141, 147; glumarum, 113; graminella, 141; graminis, 110, 140, 143, 145, 146, 152, 153; graminis tritici, 20, 22, 23, 24, 25, 26, 150; wintering of, 150;—malvacearum, morphology and life history of, 55; malvacearum, 55, 61;—mesnieriana, 141; rubigo-vera tritici, 20; trifolii, 5, 6; trifolii repentis, 5; trifolii filiformis, 5; trifolii hybridi, 5; subnitens, 147
Pucciniastrum minimum, 96
Pythium deBaryanum, 75

Quercus alba, 131; californica, 131; coccinea, 132; densiflora, 131; var. echinoides, 131; emoryii, 131; gambellii, 131; lobata, 131; marilandica, 131; Michauxii, 132; minor, 132; phellos, 132; prinus, 132; rubra, 131; texana, 132; undulata, 132; velutina, 132; virginiana, 132

Rand, F. V., A pecan leaf blotch, 133
Reddick, Donald, Necrosis and crown gall diseases of grapes in New York, 106; and Whetzel, H. H., 50
Reed, H S., The effect of the club root disease upon the ash constituents of the cabbage root, 159
Resistance and immunity in plant diseases, 109
Rhizoctonia medicaginis in America, 103
Rhizoctonia violacea, 103
Rolfs, F. M., Winter-killing of twigs, cankers and sun-scald of peach trees, 66
Root and culm infections of wheat by soil fungi, 169
Rorer, J. B., A bacterial disease of bananas and plantains, 45
Rust, alfalfa, 108; clover, red and white, 3; origin of heteroecism in, 139; timothy, 108

Schizanthus, anthracnose of, 120
Schizophyllum commune, 104, 105
Sclerotium rhizoides on Calamagrostis, 69
Scolytus rugulosus, spread of pear blight by, 155, 156, 157
Scott, W. M., A new fruit spot of apple, 32
Secale cereale, 50
Shear, C. L., The ascogenous form of the fungus causing dead-arm of the grape, 116. Reviews by, 35, 66
Silver leaf disease, of fruit trees, 177
Smith, Erwin F., Anton deBary, 1; Crown gall of plants, 7, 108; The Grand Rapids tomato diseases, 108
Smut spore germination, 108
Soil fungi, root and culm infection of wheat by, 169
Spaulding, P., The white pine blister rust, 70; The rusts of Tsuga canadensis, 94; —Review by, 104
Sphaerella convexula, 134, 135
Sphaeria convexula, 135; limminghii, 118
Sphaeropsis tumefaciens, 64
Sphaeropsis tumefaciens, nov. sp., the cause of the lime and orange knot, 63
Spore germination, relation of temperature to, with Cystopus, 69
Staining of intercellular mycelium, 129
Stakman, E. C., Cereal smut spore germination, 108
Stemphylium tritici, 20, 22, 23, 26, 27
Stereum fasciatum, 108; hirsutum, 104, 105; purpureum, 104, 105; rugosum, 105

Stevens, F. L., and Hall, J. G., Diseases of economic plants, 35
Stewart, V. B., Peach leaf curl in nursery stock, 107; Jensen, C. N., and, 120
Stout, A. B., Sclerotium rhizoides on Calamagrostis canadensis, 69
Sugar beet, leaf spot, 108
Sun scald of peach trees, 66
Sweet pea disease, 106
Sweet potato disease, 196
Swingle, D. B., and Morris, H. E., A preliminary report on the effects of arsenical compounds upon apple trees, 79, 108

Tannin, Relation to enzymes, 68
Taubenhaus, J. J., A contribution to our knowledge of the morphology and life history of Puccinia malvacearum Mont., 55; A study of some Gloeosporiums and their relation to a sweet pea disease, 106, 196; Cook, M. T. and, 184
Timothy rust, 108
Tomato disease, Grand Rapids, 108
Townsend, C. O., Leaf spot of sugar beets, 108
Trichobasis fallens, 6
Trichoderma köningi, 185; —lignorum, 184.
Trifolium carolinianum, 5; hybridum, 3, 4, 6; incarnatum, 3, 4, 6; medium, 6; pratense, 3, 4, 6; repens, 3, 4
Triticum monococcum, 77
Tsuga canadensis, 96; rust of, 94; caroliniana, 94
Tubercularia fici, 13, 16

Uredo apiculata, 6; α trifolii, 6; apiculosa var. trifolii, 6; fabae trifolii, 6; fallens, 5, 6; trifolii, 6
Uromyces elegans, 5; **fallens**, 6; pisi, 147; trifolii, 3, 4, 5, 6; trifolii-repentis, 3, 6
Ustilago avenae, 110

Valsa leucostoma, 66, 105; var. cincta, 66; var. rubescens, 66; sordida, 105
Vicia faba, 191

Wallace, E., Blodgett, F. M., and Hesler, L. R., Some laboratory and field studies on fungicidal values, 107
Water core of apple 126
Wheat, floret sterility, 18; infection through seed, 150; root and culm infection, 169
Whetzel, H. H., The industrial fellowship in plant pathology, 68
Whetzel, H. H., and Reddick, D., A method of developing Claviceps, 50
White pine blister rust, 70
Winter killing of peach trees, 66